Check-in & Sound check 12:00-12:30

Via 'View' (upper right corner) you can switch to 'Side-by-side: Speaker' to see the speaker and the presentation at the same time.

Welcome to E-LÄSS **webinar 27-28 Jan 2021**

The European network for Lightweight Applications at Sea

Zoom Webinar rules of the day:

1. *Upon entry, your microphone and camera are switched off. During "Check-in & Sound check" you may check their functionality.*
2. *You may switch on your microphone and camera yourself. Only do this when given the word by the moderator.*
3. *Raise your hand if you want to ask the presenter a question. There will be a moderated Q&A after each presentation.*
4. *If you have a technical question, please use the chat.*

RI. SE INSTITUTES E-LÄSS

Welcome to E-LASS webinar 27-28 Jan 2021

The European network for Lightweight Applications at Sea

Franz Evegren
RISE Research Institutes of Sweden
Safety & Transport
Fire Safe Transport

Co-organized with RAMSSES and NAVAL GROUP

Four are one:
RISE Research Institutes of Sweden

The institutes **SP**, Innventia, Swedish ICT and Swerea have merged into RISE, in order to become a stronger research and innovation partner for businesses and society.

Facts about **RISE**

- Turnover ~300 million Euro
- 2 300 employees, 30 % PhD
- SME clients responsible for approx. 30 %
- RISE is owner/partner in over 100 unique test beds and demonstration facilities

RI.
SE

RI.
SE

Founded in 2013, E-LASS is a well-established European network for Lightweight Applications at Sea with approx. 550 members in 32 countries.

Twice a year, the network meets for a seminar and industry tour to discuss innovative solutions and to enhance the use of lightweight materials within maritime and offshore sectors.

549 members from 32 countries

Ulrica Ek

Project Communicator at RISE

e-lass@ri.se

E-LASS History

13. Jan 2021, Webinar

12. Sept 2020, Webinar

11. Jan 2020, *IFAM* Bremen, Germany

10. June 2019, *aimen* Vigo, Spain

9. January 2019, *PodComp* Piteå, Sweden

8. June 2018, *CdA* Pornichet, France

7. January 2018, *RISE* Borås, Sweden

6. October 2017, *Uljanik* Pula, Croatia

5. November 2016, *SAPA* Finspång, Sweden

4. November 2015, *Damen* Gorinchem, Netherlands

3. January 2015, *Soton* Southampton, England

2. March 2014, *Meyer Werft* Papenburg, Germany

1. October 2013, *RISE* Borås, Sweden – *Kick-off*

E-LASS

Since 2013

”Not too commercial – not too scientific”

No member fee and low cost events – Sponsors!

Co-organized with RAMSSES NAVAL GROUP

E-LASS History

13. Jan 2021, Webinar

12. Sept 2020, Webinar

11. Jan 2020, *IFAM* Bremen, Germany

10. June 2019, *aimen* Vigo, Spain

9. January 2019, *PodComp* Piteå, Sweden

8. June 2018, *CdA* Pornichet, France

7. January 2018, *RISE* Borås, Sweden

E-LASS

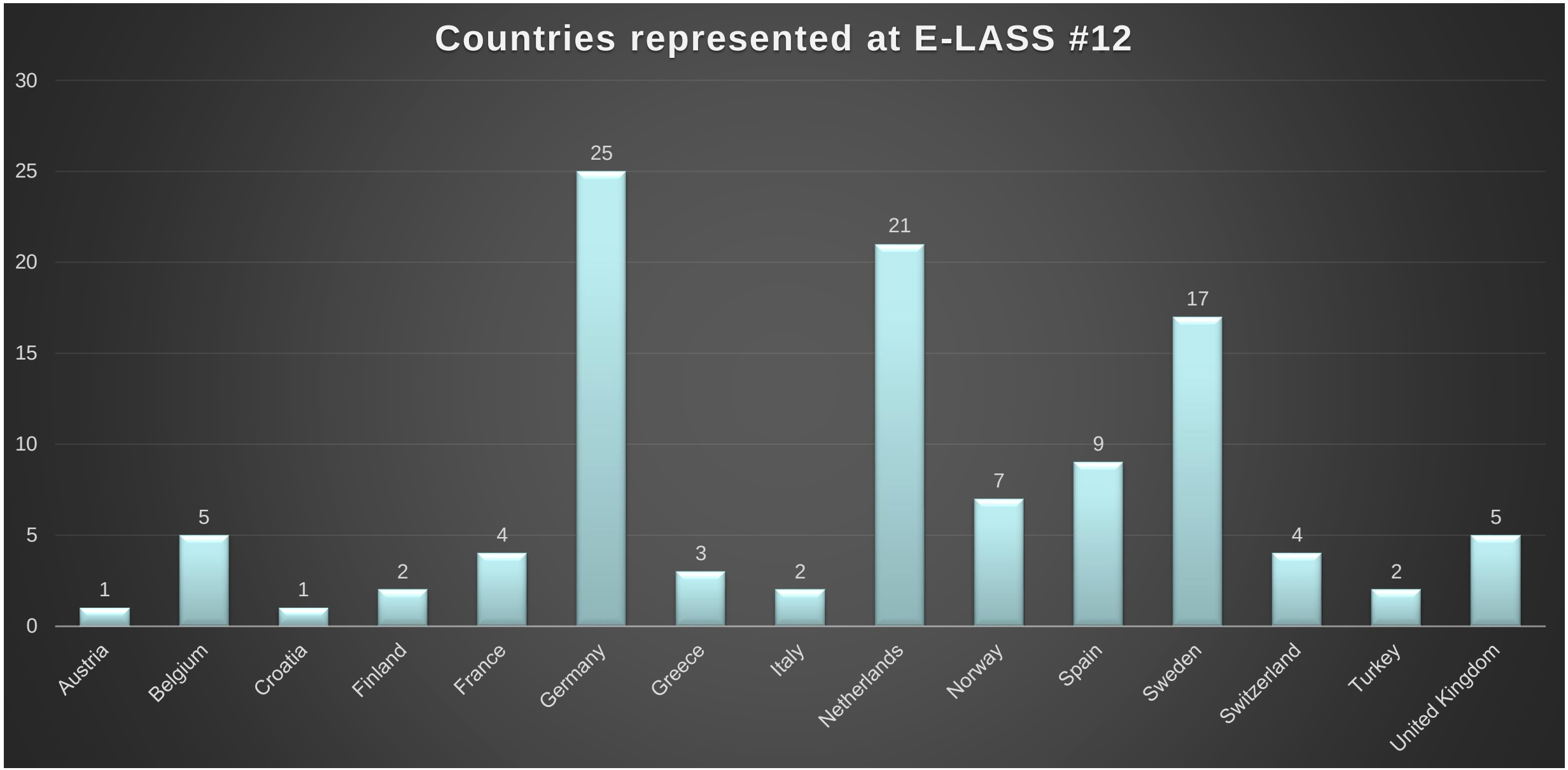
Since 2013

"Not too commercial – not too scientific"

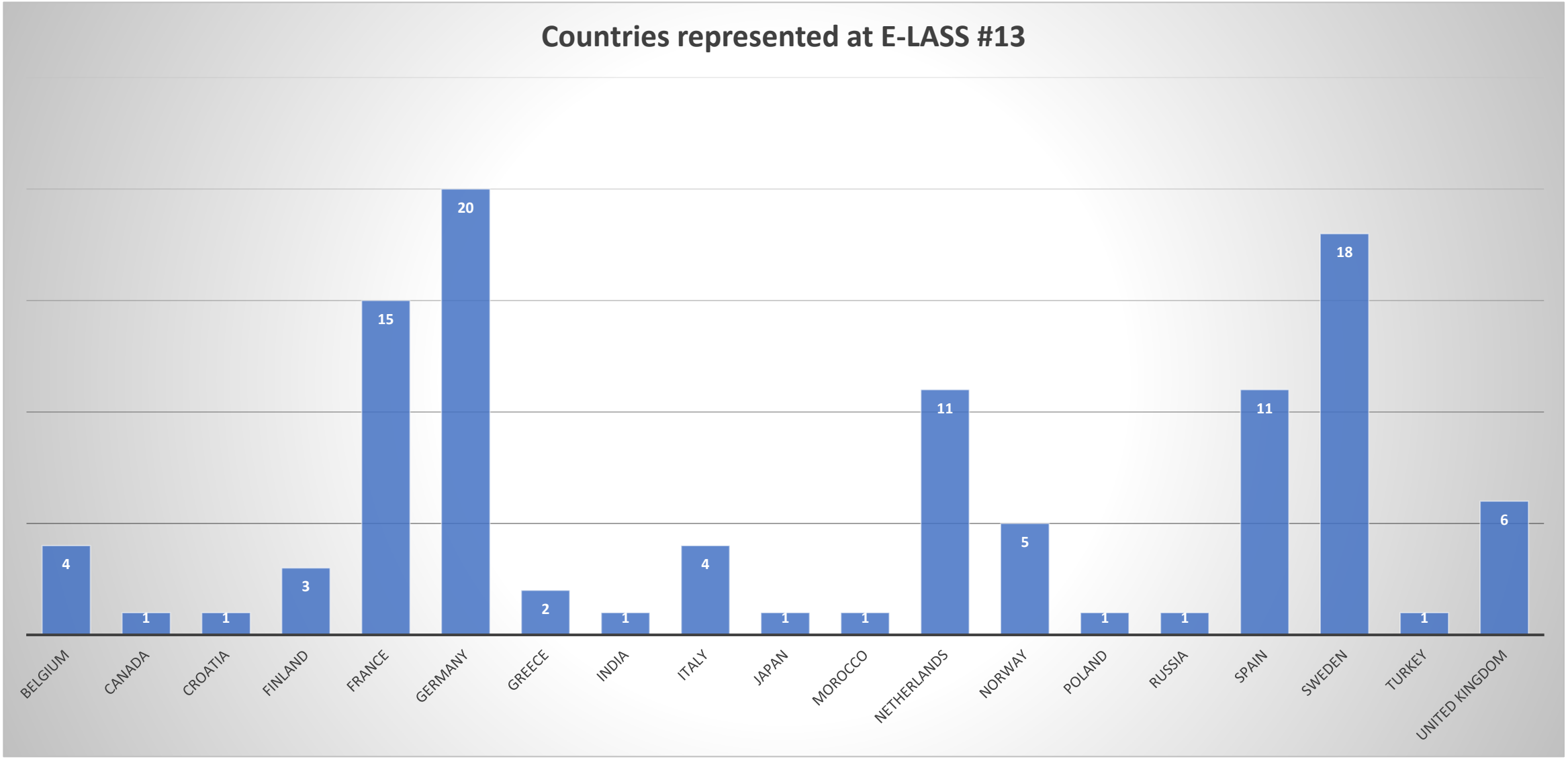
No member fee and low cost events – Sponsors!

Co-organized with RAMSSES NAVAL GROUP

E-LASS representation – what country are you in?



E-LASS representation – what country are you in?



E-LASS Agenda

E-LASS Seminar #13
27-28 January 2021
Webinar (time zone: CET)

27 Jan: Lightweight application				
12:30	13:00	Check-in & Sound check		
13:00	13:10	Welcome	Franz Evegren & Tommy Hertzberg	RISE
13:10	14:05	Composite superstructure module demonstrator for multi purpose vessels (RAMSSES)	Emilien Billaudeau	Naval Group
14:05	14:30	Application of conductive FRP composite	Kristian Vidfar	BPAB
14:30	15:00	*Coffee break & mingle*		
15:00	15:25	Review of the Visby corvettes	Sten Vallbo	Saab-Kockums
15:25	15:50	Acoustic Black Holes (RAMSSES)	Julio Cesar de Luca & Stephane Paboeuf	IRT Jules Verne & BV
15:50	16:00	*Micro break*		
16:00	16:25	Composite fluid structure interaction	Laura Marimon Giovannetti	SSPA
16:25	16:50	Lightweight composit superstructure collossos	Jeroen van Deutekom	VABO
16:50	17:00	*Concluding remarks and end of day 1*	Franz Evegren & Tommy Hertzberg	
28 Jan: Manufacturing and industrial process methods				
12:00	12:30	Check-in & Sound check		
12:30	13:00	WAMM manufactured hollow blade and impact on future ship building (RAMSSES)	Patrice Vinot	Naval Group
13:00	13:25	New classification rules for composite tween deck	Philippe Noury	DNV GL
13:25	13:50	FIBRE4YARDS - Fibre composite manufacturing technologies for automation and modular construction in shipyards	Xavier Martinez & Daniel Sá	Cimne & CompassIS
13:50	14:20	*Coffee break & mingle*		
14:20	14:45	Additive FRP composite production	Emil Hedlund	RISE Material and production
14:45	15:10	FRP-based solutions for the structure and functional components of large offshore wind energy and tidal power platforms	Julio García	Cimne
15:10	15:20	*Micro break*		
15:20	16:20	Innovation in Naval Group and non-metallic material's challenges for a warship and combat system designer and integrator	Philippe Goubault & Emilien Billaudeau	Naval Group
16:20	16:30	*Concluding remarks and end of E-LASS #13*	Franz Evegren & Tommy Hertzberg	RISE

Co-organized with RAMSSES NAVAL GROUP

EU funding development

This project has received funding from European Union´s Horizon 2020 research and innovation programme under grant agreement Nº 723360

FIBRESHIP June 2017-May 2020, **M€ 11** (Engineering, production and life-cycle management for the complete construction of large-length FIBRE-based SHIPs)

RAMSSES *June 2017-Nov 2021,* ***M€ 13.5*** *(Realisation and Demonstration of Advanced Material Solutions for Sustainable and Efficient Ships)*

FIBRE4YARDS *Jan 2021-Dec 2023,* ***M€ 7.6*** *(FIBRE composite manufacturing technologies FOR the automation and modular construction in shipYARDS)*

FIBREGY *Jan 2021-Dec 2023,* ***M€ 8*** *(Development, engineering, production and life cycle management of improved FIBRE-based material solutions for structural and functional components of large offshore wind enerGY and tidal power platforms)*

---------- ***M€ 40 over 5.5 years*** ----------

Trend…

from research to commercialization
from risk assessment to safety regulation
from demonstration to industrialization

What is next? *Coffee break until 15.00*

Time for a Menti – go to menti.com and submit the code 35 19 01 8
- How do we work with EU projects in the future?

How do we work with EU-projects in the future?

Mentimeter

Lightweight materials for Battery safety

Digital Twins for Production

More work is necessary on finding the right applications i.e.less science and engineering and more on business and ROI

Showcasing what is possible - convincing the marketProviding a solid regulation foundation - lower the entry barrierDo basic research - to push the limits

More commercialization for actual application of structures

Airborne has extensive industrialisation experience and off the shelf automation equipment that we would like to explore the applicability of for Marine. Would a website that companies can talk to each other about collaboration for calls?

Focus should be on circular economy, but less on recyclability of components. Durability and extending lifetimes should be a key factor, easy refit and maintenance of structures, coupled with 'clever' systems to monitor structural strength etc.

Application of more sophisticated multi scale engineered (from nano to macro) composite materials must be considered for further weight reduction in maritime structures. Weight reduction by design is already on an edge for many industries.

I think it would be wise if the trade associations, and associations like E-lass and others combine forces to pitch for, pick-up and distribute projects amongst their members

How do we work with EU-projects in the future?

Mentimeter

Make it mandatory that test results from funded INNOVATION projects are shared in a public material data base;Alternatively: pre-normative RESEARCH projects dedicated to systematically testing novel materials

need to broaden the scope of application. currently limited or focused to naval products and specialized yards. How far will we come with the common data base and short track to approval in RAMSSES. Are we really in a stable industrialization phase?

Invite IMO representaives to follow development.

focus on the utilization and recycling process on the end of life

13

What can we do to increase the use of lightweight?

Time for a Menti – go to menti.com and submit the code 55 51 57 6

- What can we do to make customers consider more lightweight materials in shipbuilding and offshore? - - What is needed to increase the use of lightweight materials?

Coffee break until 14.30

What can we do to make customers consider more lightweight materials in shipbuilding? - - What is needed to increase the use of lightweight materials?

Mentimeter

Added value, business case and ROI

Class Certificates: MED mark of conformity, also known as the "wheelmark".Alternative: Type Approval.

Resolve fire issues, will result in increased confidence and understanding of composites

Keeping boat builders and naval Yards aside, the bottleneck is the Commercial shipyards not specialized in Composite - Solutions are still too costly, too lengthy and not sufficiently known. Also the Tween deck has not been used commercially!

Showcases of real life applications andShowcases of real life applications andShowcases of real life applications and ...

Allow for test installations having some sort of statutory exemptions, enabling "proving by doing", obviously considering overall safety...

More commercial projects!

More reliable approval processes ahead of contractual agreement - Increase cultural understanding (real life applications) - Promote existing vessels and thier LCA advantages.

Increase the reputation of lightweight solutions in the maritime industry and especially in shipyards

Short track to approval (less than 10 years ;-) and availability of test data are certainly issues.

10

What would you like to see more of at the next E-LASS seminar?

Time for a Menti – go to menti.com and submit the code 55 51 57 6

- What would you like to see more of at the next E-LASS seminar?

Micro break until 15.35

What would you like to see more of at the next E-LASS?

Mentimeter

Success stories of light weight applications in waterborne industry

success stories in equivalent fire safety assessments: lessons learned, do's and don'ts, re-usable approaches, ... We should collaborate more on that!

Practical applications (projects and reality) in commercial ships and shipyards;Follow-up of RAMSSES &FIBRESHIP: what will remain for non-partners (test data, fast-track-to approval...) Ideas for joint project by E-LÄSS

Keeping boat builders and naval Yards aside, the bottleneck is the Commercial shipyards not specialized in Composite - Solutions are still too costly, too lengthy and not sufficiently known. Also the Tween deck has not been used commercially!

New rules, regulations, standards developed from RAMSSES and FIBRESHIP

seeing people "in person"... hopefully.

More Presentations from decision makers at regulatory agencies

More commercial challenges and their results.

Increasing discussions with regulatory bodies (Classification Societies, Coast Guard, Flagstates...) to reduce reservations to everything different from steel

prediction of fatigue behavior using only one sample ('self heating curve' - SH)

10

Update of IMO guidelines on how to handle fire safety

Amendment proposals to MSC.1/Circ.1574, 9 June 2017
Interim Guidelines for use of Fibre Reinforced Plastic (FRP) elements within Ship Structures: Fire Safety Issues

> §4 These guidelines have been issued as "interim guidelines" in order to gain experience in their use. They should be reviewed four years after their approval in order to make any necessary amendments based on experience gained.

- E-LASS Correspondence Group to be established to gather input.
- E-mail franz.evegren@ri.se if you want to join the correspondence group
- More information in the next E-LASS newsletter.

Ongoing initiative to receive input from flag states on RAMSSES guidelines

E-LASS

www.e-lass.eu
e-lass@ri.se

Time for a Menti – go to menti.com and submit the code 55 51 57 6
- What would you like to see more of at the next E-LASS seminar?

”Not too commercial – not too scientific”

Welcome to the next E-LASS event, organized digitally around **15-17 June**, in cooperation with shipyards around the Baltic Sea

MEYER TURKU
SHIPYARD 1737

Are you interested to present at our next E-LASS? Send a short (1/2 page) abstract to e-lass@ri.se

RI.SE INSTITUTES

Franz Evegren
franz.evegren@ri.se
+46 (0)10-516 50 88

Thank you for your attention!